# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

SYMBOLOGY INNOVATIONS, LLC	§	
Plaintiff,	§	
	§	Case No. 2:15-cv-1169-RWS-RSP
vs.	§	LEAD CASE
	§	
ADAMS EXTRACT	§	
Defendant.	§	
SYMBOLOGY INNOVATIONS, LLC Plaintiff,	89 89	Case No. 2:15-cv-1170-RWS-RSP
vs.	§	
	§	JURY TRIAL DEMANDED
AETNA, INC.	§	
Defendant.	§	

<u>DEFENDANT AETNA INC.'S MOTION FOR SUMMARY JUDGMENT OF</u>
<u>INVALIDITY OF CLAIM 1 OF EACH OF</u>
<u>U.S. PATENT NOS. 8,424,752, 8,651,369, AND 8,936,190 AND BRIEF IN SUPPORT</u>

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#### I. Introduction

Pursuant to Fed. R. Civ. P. 56, Defendant Aetna Inc. ("Aetna") respectfully moves for summary judgment of invalidity, on the grounds of anticipation, of the three patent claims asserted in this case. Plaintiff asserts infringement of claim 1 of each of U.S. Patent Nos. 8,424,752 ("'752 patent," Ex. A), 8,651,369 ("'369 patent," Ex. B) and 8,936,190 ("'190 patent," Ex. C) ("the asserted claims"). All three patents share a common specification, and the three asserted claims are nearly identical, differing from one another in only a few words. Anticipation under 35 U.S.C. § 102 requires that all elements of a claim be disclosed by a single prior art reference. Here, the prior art is clear. Each of the three references addressed herein independently discloses all elements of each asserted claim. The references use, in key respects, exactly the same terminology of the patents in suit. There can be no genuine dispute about the dates of the references or what they disclose. In comparing any one of the references to the claims, the Court will readily see that summary judgment is warranted, ending this litigation.

#### II. Issues To Be Decided By The Court

- 1. Whether U.S. Patent Application Pub. No. 2007/0215685 to Self *et al.* ("Self," Ex. D) renders the asserted claims invalid under 35 U.S.C. § 102(b).
- 2. Whether U.S. Patent Application Pub. No. 2009/0108057 to Mu *et al.* ("Mu," Ex. E) renders the asserted claims invalid under 35 U.S.C. § 102(b).
- 3. Whether Japanese Patent Application Pub. No. 2002-118680 to Ekusa *et al.* ("Ekusa," Exs. F and G) renders the asserted claims invalid under 35 U.S.C. § 102(b).

DAL:946246.2

<sup>&</sup>lt;sup>1</sup> Aetna contends, and if necessary will assert at trial, that the patent claims are separately anticipated by six (6) different prior art references. However, to simplify and streamline this motion, only three of the references are relied on here.

#### **III.** Statement Of Undisputed Material Facts

The evidence supporting this motion is straightforward and unrebutted. The prior art references themselves are printed documents published by the U.S. Patent and Trademark Office and the Japanese Patent Office on the dates that they bear. Plaintiff does not dispute their genuineness as such. The subject matter disclosed and described by the references is apparent from a reading of the documents themselves. The direct relevance and correspondence of each reference's teaching to each of the elements of the asserted claims is plain to any reader and, further, is evidenced by the report and declaration of Dr. Kevin Berisso (Ex. I hereto), Aetna's expert on the subject of invalidity. Plaintiff in this case has opted not to rely on expert testimony on any issue. Therefore, Dr. Berisso's testimony is unrebutted, and his conclusions are not challenged. The undisputed material facts are as follows:

- 1. In this case, the asserted claims are claim 1 of the '752 patent, claim 1 of the '369 patent and claim 1 of the '190 patent.
- 2. The '752 patent, '369 patent and '190 patent are related to one another, and each one also refers to an earlier related application which was filed on September 15, 2010, namely U.S. Patent Application Serial Number 12/882,616.
- 3. September 15, 2010 is the earliest possible effective filing date to which the asserted claims may be entitled.
- 4. Self (Ex. D) is a printed publication.
- 5. Self was published by the U.S. Patent and Trademark Office on September 20, 2007, which is more than a year prior to the earliest possible effective filing date of the asserted claims.
- 6. Self was identified to Plaintiff in a timely manner pursuant to Local Patent Rules 3-3 and 3-4.
- 7. Self discloses the subject matter of each of the asserted claims.
- 8. Mu (Ex. E) is a printed publication.
- 9. Mu was published by the U.S. Patent and Trademark Office on April 30, 2009, which is more than a year prior to the earliest possible effective filing date of the asserted claims.

- 10. Mu was identified to Plaintiff in a timely manner pursuant to Local Patent Rules 3-3 and 3-4.
- 11. Mu discloses the subject matter of each of the asserted claims.
- 12. Ekusa is a printed publication.
- 13. Ekusa was published by the Japanese Patent Office on April 19, 2002, which is more than a year prior to the earliest possible effective filing date of the asserted claims.
- 14. Ekusa (Ex. G) as originally published in the Japanese language was identified to Plaintiff in a timely manner pursuant to Local Patent Rules 3-3 and 3-4.
- 15. A certified English translation of Ekusa (Ex. F) was also identified to Plaintiff in a timely manner pursuant to Local Patent Rules 3-3 and 3-4.
- 16. The certified (Ex. H) English translation of Ekusa (Ex. F) is an accurate English translation of the original Japanese publication (Ex. G).
- 17. Ekusa discloses the subject matter of each of the asserted claims.

#### IV. Argument And Authorities

#### A. The Asserted Claims

The patents in suit share a common specification, and the three asserted claims are nearly identical, differing from one another in only a few words. All three asserted claims are drawn to the concept of using an electronic device like a smartphone to capture an image of a barcode, decode it, and use the decoded information to access, obtain and display related information from a remote server, such as from a website on the internet.

Claim 1 of the '752 patent is reproduced below.

#### 1. A method comprising:

capturing a digital image using a digital image capturing device that is part of a portable electronic device;

detecting symbology associated with an object within the digital image using a portable electronic device;

decoding the symbology to obtain a decode string using one or more visual detection applications residing on the portable electronic device;

sending the decode string to a remote server for processing;

receiving information about the object from the remote server wherein the information is based on the decode string of the object;

displaying the information on a display device associated with the portable electronic device.

The patent specification elaborates somewhat on the sequence of actions recited in the claim. The "symbology" refers to a barcode, for example. '752 patent, 3:1. The barcode is captured using "a camera, scanner, or other device." '752 patent, 2:57-61. Portable electronic devices such as the Apple iPhone and Android phones are described. '752 patent, 3:2-3. Software is "configured to recognize symbology within the captured image." '752 patent, 8:62-63. A decoding application may be used to decode the symbology (barcode). '752 patent, 3:2-4. A decode string, "representing the decoded symbology may be used to determine the object associated with the symbology and then gather information about that object. Furthermore, the decode string is sent to a server...." '752 patent, 3:18-22. Thereafter, the portable electronic device receives "information from the remote server as indicated in block 150. The information from the server may be related to information about one or more objects identifiable by the decode string." '752 patent, 12:55-60. Finally, the information is displayed on a display screen of the portable electronic device. '752 patent, 12:63-64.

Claim 1 of the '369 patent differs slightly from claim 1 of the '752 patent in that it does not require the "object." Claim 1 of the '369 patent is reproduced below.

#### 1. A method comprising:

capturing a digital image using a digital image capturing device that is part of a portable electronic device;

- detecting symbology associated with the digital image using a portable electronic device;
- decoding the symbology to obtain a decode string using one or more visual detection applications residing on the portable electronic device;
- sending the decode string to a remote server for processing;
- receiving information about the digital image from the remote server wherein the information is based on the decode string;
- displaying the information on a display device associated with the portable electronic device.

Claim 1 of the '190 patent differs slightly further in that the device need not be "portable." Claim 1 of the '190 patent is reproduced below.

## 1. A method comprising:

- capturing a digital image using a digital image capturing device that is part of an electronic device;
- detecting symbology associated with the digital image using the electronic device;
- decoding the symbology to obtain a decode string using one or more visual detection applications residing on the electronic device;
- sending the decode string to a remote server for processing;
- receiving information about the digital image from the remote server wherein the information is based on the decode string;
- displaying the information on a display device associated with the electronic device.

Because claim 1 of the '752 patent is the most specific, or narrowest, of the three asserted claims, a prior art reference effective to anticipate that claim, as will be shown, is also sufficient to anticipate the broader claims as well.

## B. Legal Standard

# 1. Summary Judgment

Summary judgment should be granted "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *Celotex v. Catrett*, 477 U.S. 317, 322 (1986); *Peggy Young v. United Parcel Service, Inc.*, 135 S. Ct. 1338, 1343 (2015). "By its very terms, this standard provides that the mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no genuine issue of material fact." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247- 48 (1986), *quoted in Timothy Scott v. Victor Harris*, 127 S. Ct. 1769, 1776 (2007). The substantive law identifies the material facts, and disputes over facts that are irrelevant or unnecessary will not defeat a motion for summary judgment. *Anderson*, 477 U.S. at 248. A dispute about a material fact is "genuine" only when the evidence is "such that a reasonable jury could return a verdict for the nonmoving party." *Id.* 

The moving party must identify the basis for granting summary judgment and the evidence demonstrating the absence of a genuine issue of material fact. *Celotex*, 477 U.S. at 323. If the movant bears the burden of proof on an issue at trial, then the movant "must establish beyond peradventure all of the essential elements of the claim or defense to warrant [summary] judgment in his favor." *Fontenot v. Upjohn Co.*, 780 F.2d 1190, 1194 (5th Cir. 1986).

#### 2. Anticipation Under 35 U.S.C. § 102(b)

A claim is invalid as anticipated under § 102(b) if the claimed invention was "patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102 (b). A defense of patent invalidity must be proven by clear and convincing

evidence. *Microsoft Corp. v. i4i Limited Partnership*, 131 S.Ct. 2238, 2239 (2011) ("§ 282 requires an invalidity defense to be proved by clear and convincing evidence").

# C. Each Asserted Claim is Anticipated By Multiple Prior Art References

The patents in suit claim the benefit of the filing date of an earlier, related application, namely U.S. Patent Application Serial Number 12/882,616. The filing date of that application, September 15, 2010, is the earliest possible effective filing date to which the claims of the asserted patents may be entitled. In other words, there is no other application, earlier than September 15, 2010, relied on or referred to by the patents in suit for purposes of establishing an effective filing date.

By September 2010, smartphones were ubiquitous, as were barcodes. The prior art references discussed below clearly show that, by that time, there was absolutely nothing novel in using the camera of a smartphone to capture a barcode image, decoding it, and then sending the decoded information from the smartphone to a server in order to retrieve and display on the smartphone additional related information. The asserted claims cover what, by September 2010, was entirely conventional technology.

# 1. U.S. Patent Application Publication 2007/0215685 (Self *et al.*) Anticipates The Asserted Claims

Self was published on September 20, 2007, well more than a year prior to the effective filing date of the asserted claims. *See* Ex. D. It teaches a method for a consumer to obtain additional product information by using a camera phone to capture a bar code symbol appearing on the product, where the symbol represents a URL allowing the phone to retrieve the information from a remote location over the internet. This is generally described in the Self reference as follows:

To ensure effective product regulation and consumer safety, measures that improve accessibility of product information and

authenticity to relevant personnel should be implemented. In one example, bar codes (e.g., QR codes) are used to encode URLs for capture and efficient decoding by a camera phone (e.g., an off the shelf camera phone) having the relevant software for QR code reading. The decoded URL can then be accessed by the camera phone through a network. Since use of camera phones has become widespread, information encoded with QR codes can be conveniently read by anyone carrying a cellular phone with a camera. This method is typically used to provide a link to a web page containing more information about an advertisement of a product or service in a magazine, newspaper, or other printed publication.

#### Ex. D, Self at ¶ [0003].

As shown below, the detailed implementation described in the Self reference corresponds exactly to the steps of claim 1 of the '752 patent.

### a) Capturing A Digital Image

The method described by Self expressly includes "capturing a digital image using a digital image capturing device that is part of a portable electronic device." For example, Self states:

In operation 312, an identifier of the associated URL of the item or package is captured. For example, the identifier can be captured by a shopper, an end user, a distributor, or a shipment carrier. ... [T]he identifier is automatically **captured** with **an image capturing device** such as a digital camera, a camera, digital cameras **built into portable devices** (e.g., cell phones, PDAs, laptop computers etc), or a scanner.

Self at  $\P$  [0069] (emphasis added). Self teaches that a digital image may be captured using a digital image capturing device (*e.g.*, "image capturing device") that is part of a portable electronic device (*e.g.*, "camera phone"). Ex. I, Berisso Decl. at  $\P\P$  51, 54, 58 and 62, and exhibits G, M, S thereto.

#### b) Detecting Symbology

Likewise, Self discloses "detecting symbology associated with an object within the digital image using a portable electronic device." For example:

In one embodiment, the identifier is marked as <u>a bar code that is</u> scannable by <u>image capturing devices</u>. Additionally, the identifier may be a 2D bar code. In process 310, <u>the item or package is marked with an identifier</u> of the associated URL of the item or package.

Self at ¶ [0067] (emphasis added). In Self, the bar code is detected in that it is able to be read by a portable electronic device, such as a camera phone.

In one embodiment, the bar code is <u>a 2D bar code in a QR</u> format that is able to be read by camera phones with QR reading capabilities.

Self at ¶ [0056] (emphasis added). Self further teaches that a symbology (e.g., "QR code") associated with an object (e.g., "to be marked on each unit item") within the digital image is detected using the portable electronic device. Self at ¶ [0060]; Berisso Decl. at ¶¶ 51, 54, 58 and 62, and exhibits G, M, S thereto.

#### c) Decoding The Symbology To Obtain A Decode String

The Self method further includes "decoding the symbology to obtain a decode string using one or more visual detection applications residing on the portable electronic device." The reference states that "bar codes (*e.g.*, QR codes) are used to encode URLs for capture and efficient <u>decoding</u> by a camera phone (*e.g.*, an off the shelf camera phone) <u>having the relevant</u> <u>software</u> for QR code reading." Self at ¶ [0003] (emphasis added). Further, the decoded data may contain "a <u>string</u> of sixteen alphanumeric characters consisting of numbers and letters, such as the product code 602." Self at ¶ [0088] (emphasis added); Berisso Decl. at ¶¶ 51, 54, 58 and 62, and exhibits G, M, S thereto.

#### Self states:

The product code/URL may be captured by the consumer device 106 in various methods ... a camera, and/or a bar code reader. ... In one embodiment, the bar code is a 2D bar code in a QR format that is able to be read by camera phones with QR reading capabilities. **The URL associated with the QR code can then be decoded** and the web page can be accessed.

Self at ¶ [0056] (emphasis added). Thus Self teaches decoding symbology to obtain a decode string.

d) Sending The Decode String To A Remote Server

Self also discloses "sending the decode string to a remote server for processing." For example:

The consumer device 106 may be any device having networking capabilities (e.g., mobile phone, PDA, notebook, desktop computer, etc.) able to **send** a product code/URL that is to be authenticated **through the network** 110 **to the server** module 100.

Self at ¶ [0055] (emphasis added). Additionally, Self teaches:

Bar codes known as QR codes are used to encode URLs in a machine-readable printed format. The barcodes can be read with off-the-shelf camera phones. For example, if the bar code contains a URL, the camera phone can automatically retrieve the associated webpage from a network.

Self at ¶ [0035]. Thus, Self teaches sending the decode string to a remote server (e.g., "server module 100") for processing and that the portable electronic device will receive from the remote server information about the object that is based on the decode string (e.g., "the information is retrieved from the computer system"). Self at ¶ [0044]; Berisso Decl. at ¶¶ 51, 54, 58 and 62, and exhibits G, M, S thereto.

e) Receiving Information About The Object From The Remote Server

The Self reference further describes "receiving information about the object from the remote server wherein the information is based on the decode string of the object." For example, Self discloses:

In particular, unit-level unique URLs can be generated and marked on products or packages to track products and/or to authenticate products. These URLs will provide information regarding individual items. When the URLs are encoded as bar codes, an off-the shelf camera phone can be used to retrieve the information in addition to providing authentication of the product.

Self at ¶ [0036] (emphasis added).

In operation 318, the product <u>information about the item</u> or package <u>associated with the URL</u> is <u>received</u> by the requester. ... The product information can also be provided through a web page.

Self at  $\P$  [0072] (emphasis added). Thus, Self teaches that the portable electronic device receives information from the remote server about the object based on the decode string (*e.g.*, "the information is retrieved from the computer system"). Self at  $\P$  [0044]; Berisso Decl. at  $\P$  51, 54, 58 and 62, and exhibits G, M, S thereto.

#### f) Displaying The Information On A Display Device

Finally, Self discloses "displaying the information on a display device associated with the portable electronic device." Self teaches that "the product code may be authenticated via a **webpage** access of data maintained by the server module 100 to locate information associated with the product having the particular product code." Self at ¶ [0056] (emphasis added). Further, Self states:

In addition to communicating authentication results to the consumer device 106, alternate information revealed during the decryption process, such as product information, expiration date, manufacturing location, may also be communicated to the consumer device 106 and **displayed** accordingly."

Self at ¶ [0057] (emphasis added). Thus, Self teaches that the portable electronic device displays the received information on a display device associated with the portable electronic device. Berisso Decl. at ¶¶ 51, 54, 58 and 62, and exhibits G, M, S thereto.

As shown above, Self expressly discloses all elements of claim 1 of the '752 patent. Claim 1 of the '369 patent differs only slightly in that it does not require the "object," and claim 1 of the '190 patent differs only slightly further in that the device need not be "portable." Thus, Self discloses all elements of claim 1 of the '369 and '190 patents as well.

# 2. U.S. Patent Application 2009/0108057 (Mu et al.) Anticipates The Asserted Claims

Mu was published on April 30, 2009, more than a year prior to the effective filing date of the asserted claims. *See* Ex. E. Mu generally describes a method using QR codes that have been scanned by a mobile device to obtain information from a remote server. The information is received from the remote server and displayed on the mobile device. Mu at Abstract; Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

#### As described by Mu:

FIG. 3 shows transmission of QR code data to a server for processing in interactive entertainment or interactive language learning applications, under an embodiment. An embodiment of QR code recognition processing for interactive entertainment or interactive language learning begins when a user scans a QR code 205 using his/her client device. The QR code includes information or indications of a command for a location on the web or a server that the user wishes to access. The client decoder 220 sends the QR code data request to the server supporting the QR code processing application and the URL from the decoded QR code 230 via the network.

In response to transmission of the QR code by the client, the client receives an XML file 250 comprising a web page from the server for use in an entertainment or language learning activity, and the client device 210 displays the text, graphics and multimedia data of the file to the user 200. When the user thereafter selects an exercise via the displayed web page, a script associated with the selected exercise activates a browser component.

In an embodiment, a text response is returned to the client from the server, which is displayed on a portion of the screen already displaying the current web page for the activity accessed by the user. In an alternative embodiment, an entirely new XML page 250 is returned from the server 240, which is displayed as a new web page to the user, via the client screen on the mobile device 210.

Ex. E, Mu at ¶¶ [0028]-[0030]. Further, Mu explains that "QR codes storing addresses and URLs may appear in books, on object packaging, games, toys or just about any object about which a user might want information." Mu at ¶ [0018]. Figure 3 of Mu, reproduced below, illustrates the transaction described in the paragraphs quoted above.

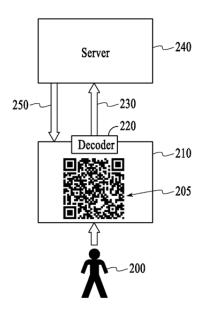


FIG.3

As shown below, the detailed implementation described in the Mu reference corresponds exactly to the steps of the asserted claims.

#### a) Capturing A Digital Image

Mu explicitly discloses "capturing a digital image using a digital image capturing device that is part of a portable electronic device." For example, Mu describes using a client device, such as a "mobile phone," to capture a QR code. Mu at ¶ [0022].

FIG. 1 shows a client device configured to scan a QR code, under an embodiment. The client device 10 is operated by a user 20 and includes and processes all applications corresponding to QR code recognition activities. These applications include a camera application 30 for scanning the QR Code from a physical object 40, but the applications are not so limited.

Mu at ¶ [0021].

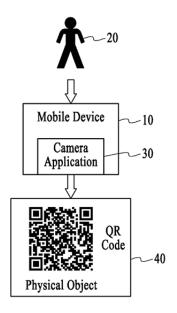


FIG.1

#### Mu, Fig. 1.

Mu teaches that a digital image may be captured using a digital image capturing device (e.g., "optical sensing device or camera") that is part of a portable electronic device (e.g., "mobile device"). Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

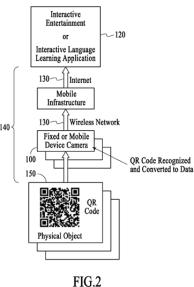
#### b) Detecting Symbology

Mu explicitly discloses "detecting symbology associated with an object within the digital image using a portable electronic device." In Mu, the QR code is on a "Physical Object 40," as shown in Figs. 1 and 2, such as "games, toys or just about any object about which a user might want information," within the digital image and is detected using the portable electronic device. *See* Mu at ¶ [0018]. After capturing the image, software on the mobile device detects the code by recognizing it:

In an embodiment, to enable a client 100 to use QR code recognition for interactive entertainment, interactive learning, or interactive language learning over the mobile infrastructure 130, applications that support the processing of QR codes are downloaded from the server 120 and installed to the user's client 100 at the time a user subscribes to the entertainment or language

learning service. These downloaded applications are subsequently run on the client 100 during the execution of the QR code recognition exercises.

Mu at ¶ [0023]. As shown in Fig. 2, "QR Code Recognized" is one of the functions of the mobile device:



F10.2

Mu teaches that a symbology (e.g., "QR code") associated with an object (e.g., "portion of a book," "Physical Object 40") within the digital image is detected using the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

### c) Decoding The Symbology To Obtain A Decode String

Mu explicitly discloses "decoding the symbology to obtain a decode string using one or more visual detection applications residing on the portable electronic device." Mu teaches that a QR code is typically decoded by a user's portable electronic device, such as a mobile phone.

Typically, the client will be configured to decode the QR code locally rather than transferring the QR code to the server for interpretation, but the client is not so limited. A user having a client device with a scanner, for example <u>a camera telephone</u> <u>phone equipped with a reader and reader software can scan and decode</u> the image of the QR code causing the phone's browser to launch and redirect to the programmed URL.

Mu at ¶ [0019] (emphasis added). Additionally, Mu teaches:

The client decoder 220 sends the QR code data request to the server supporting the QR code processing application and <u>the URL from the decoded QR code 230</u> via the network.

Mu at ¶ [0028] (emphasis added); Fig. 3 (reproduced above). Further, "the QR code is decoded by or within the client and the resulting URL is used by the client to make a connection." Mu at ¶ [0035]. Mu teaches that the symbology is decoded to obtain a decode string (*e.g.*, "decoded QR code data" such as "resulting URL") using a visual detection application (*e.g.*, "QR code recognition program") residing on the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

### d) Sending The Decode String To A Remote Server

Mu explicitly discloses the recited step of "sending the decode string to a remote server for processing." For example, Mu teaches "Each client of an embodiment is configured to transfer or transmit the scanned or received data (e.g., decoded QR code data, audio data, etc.)." Mu at ¶ [0018] (emphasis added). Mu discloses decoding a QR code to obtain a decode string, such as a URL. The decode string, URL, is sent to a server. "FIG. 4 shows connection to URLs via a decoded QR code in interactive entertainment or interactive language learning applications, under an embodiment. A QR code received by a client device is decoded 320 and transferred to a server where it is processed . . . ." Mu at ¶ [0033] (emphasis added).

Thus, Mu teaches sending the decode string to a remote server (*e.g.*, "server 120") for processing. Mu at Abtract; Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

e) Receiving Information About The Object From The Remote Server

Mu explicitly teaches "receiving information about the object from the remote server

wherein the information is based on the decode string of the object." For example, in the

Abstract, Mu explains "A selected multimedia object corresponding to the QR code is retrieved

from the URL or a database. The selected multimedia object is transferred to the mobile device for playback." Mu at Abstract. Further, "Each client of an embodiment is configured to transfer or transmit the scanned or received data (e.g., decoded QR code data, audio data, etc.). The client can also be configured to <u>receive data from a remote device in response to the transmitted</u>

OR code data." Mu at ¶ [0018] (emphasis added).

Thus, Mu teaches that the portable electronic device receives from the remote server (*e.g.*, "remote device") information about the object based on the decode string. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits C, I, O thereto.

f) Displaying The Information On A Display Device

Mu also explicitly discloses "displaying the information on a display device associated with the portable electronic device." For example, Mu teaches:

The QR code function of an embodiment also includes use of the URL from the decoded QR code to return a multimedia object or web page to the client. The proper XML file is returned to the client from the server, via the Internet or wireless network, and the client's browser <u>displays the text, graphics and multimedia data</u> of the file on the client's screen.

Mu at ¶ [0026] (emphasis added).

Mu further explains, "In response to transmission of the QR code by the client, the client receives an XML file 250 comprising a web page from the server for use in an entertainment or language learning activity, and the client device 210 displays the text, graphics and multimedia data of the file to the user 200." Mu at ¶ [0029].

Thus, Mu teaches that the portable electronic device displays the received information on a display device (e.g., "the client's screen") associated with the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and Exs. C, I, O.

As shown above, Mu expressly discloses all elements of claim 1 of the '752 patent. Claim 1 of the '369 patent differs only slightly in that it does not require the "object," and claim

1 of the '190 patent differs only slightly further in that the device need not be "portable." Thus, Mu discloses all elements of claim 1 of the '369 and '190 patents as well.

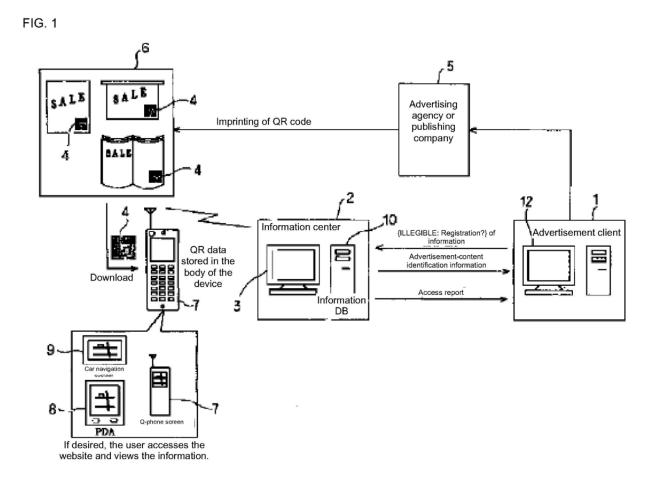
# 3. Japanese Patent Application 2002-118680 (Ekusa *et al.*) Anticipates The Asserted Claims

Ekusa was published on April 19, 2002, more than a year prior to the effective filing date of the asserted claims. *See* Ex. F. Ekusa generally describes a method including ways for a person to use a portable telephone to obtain and view product information by taking a picture of a QR code appearing in an advertisement for the product. Ekusa at Abstract; Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

Ekusa describes a system for obtaining information relating to an advertisement.

The advertisement client 1 requests, to an advertiser 5, that the advertiser 5 print a QR code 4 that indicates the advertisement-content identification information onto the advertising media 6. When the user sees the advertisement and wants to obtain information on the advertisement, he or she captures the QR code 4 with a portable telephone 7 provided with a photographic function. The portable telephone 7 accesses the information center 2 according to the connection information indicated by the QR code 4, thus allowing the user to easily access the information center 2 irrespective of the connection topology and thereby obtain information on the advertisement.

Ekusa at Abstract, Means for Resolution, PriorArt 000150. Figure 1 of Ekusa shows the system described above.



As shown below, the detailed implementation described in the Ekusa reference corresponds exactly to the steps of the asserted claims.

#### a) Capturing A Digital Image

Ekusa explicitly discloses "capturing a digital image using a digital image capturing device that is part of a portable electronic device."

A portable telephone 7 (which serves as the portable communication terminal device used by the user, who subscribes to the informational service) is provided with a scanning function for scanning and thus reading the QR code 4 ....

Ekusa at ¶ [0014]. Ekusa goes on to explain that the portable telephone captures images of QR codes. "To be more specific, the imaging part 18 provided in the portable telephone 7 can

capture digital photography in the same way as a regular digital camera. When it **captures a QR code 4**...." Ekusa at ¶ [0024] (emphasis added).

Ekusa goes on to explain in detail how a user captures a QR code using an image capturing device that is part of the portable telephone.

Meanwhile, when the user wants to use the portable telephone 7 to scan a QR code 4, he or she operates the shutter key in the key operation part 14, doing so in the state where the QR-code scan mode is selected and set. In this case, once **the imaging part 18 captures the QR code 4**, the image data of the captured QR code 4 is provided to the CPU 23.

Ekusa at ¶ [0025] (emphasis added).

Ekusa teaches that a digital image may be captured using a digital image capturing device (*e.g.*, "imaging part 18") that is part of a portable electronic device (*e.g.*, "portable telephone 7"). Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

#### b) Detecting Symbology

Ekusa explicitly discloses "detecting symbology associated with an object within the digital image using a portable electronic device." Ekusa explains that the portable telephone scans and reads a QR code. "A portable telephone 7 (which serves as the portable communication terminal device used by the user, who subscribes to the informational service) is provided with a scanning function for scanning and thus reading the QR code 4..." Ekusa at ¶ [0014]. Additionally, the QR code is associated with an object, such as an advertisement. "The advertisement client 1 requests ... that the advertiser 5 print the QR code ... onto advertising media 6 such as posters, wall banners or community magazines, etc." Ekusa at ¶ [0013].

The process for detecting symbology is explained in detail.

Figure 5 shows a positioning symbol. In said Figure 5, the positioning symbol 31 is configured so that contrast (dark/light) component ratio of the pattern passing through the center of the positioning symbol 31 (as represented by the patterns (a), (b) and (c) in Figure 4)would be dark:light:dark:light:dark = 1:1:3:1:1.

Thus, the CPU 23 obtains the ratio of the length of continuous light (1) and the length of continuous dark (0) in a QR image, thereby **detecting a pattern** applicable to the positioning symbol 31 of the QR code 4 based on said ratio of the lengths. It also executes code processing and can thereby determine whether the QR code 4 is present in the image based on whether three positioning symbols are present at appropriate positions.

Ekusa at ¶ [0027] (emphasis added).

Thus, Ekusa teaches that a symbology (*e.g.*, "QR code 4") associated with an object (*e.g.*, "advertising media 6") within the digital image is detected using the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

c) Decoding The Symbology To Obtain A Decode String

Ekusa explicitly discloses "decoding the symbology to obtain a decode string using one or more visual detection applications residing on the portable electronic device." For example, Ekusa teaches "[a] decoding means for deciphering the two dimensional code captured by said imaging means and converting it into data." Ekusa at claim 1. Additionally, "When it captures a QR code 4, which contains coded information, it can <u>decode the QR code 4 and thereby</u> <u>convert the code into textual information</u>." Ekusa at ¶ [0024] (emphasis added). Of course, textual information is a string of characters. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto. The decoding is carried out by the CPU of the portable telephone:

In this case, once the imaging part 18 captures the QR code 4, the image data of the captured QR code 4 is provided to the CPU 23. **The CPU 23**, when provided with a QR code 4, **decodes the QR code 4** and displays the decoded information on the display part 16 while storing it in the RAM 25

Ekusa at ¶ [0025] (emphasis added). And the CPU operates based on an application residing on the device:

Said CPU 23 is configured to operate based on a program stored in ROM 24 according to the operation through the key operation part 14.

Ekusa at ¶ [0020] (emphasis added).

Figure 6, reproduced below, illustrates the decode string, including "advertisement identification information 32b," obtained when symbology, such as a QR code, is decoded with Ekusa's system.

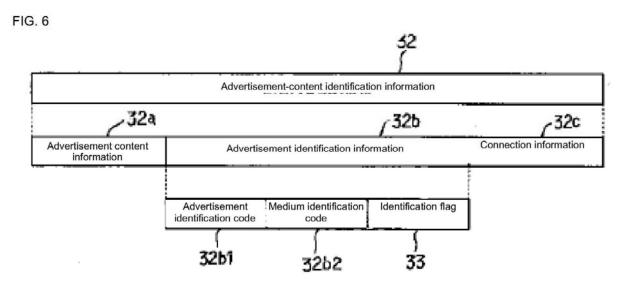


Figure 6 shows information recorded on the QR code 4. In said Figure 6, the advertisement-content identification information 32, which is used to identify advertisement information (which corresponds to connection information), is stored in the QR code 4. The advertisement-content identification information 32 concerned consists of advertisement content information 32a, advertisement identification information 32b and connection information 32c.

#### Ekusa at ¶ [0029].

Thus, Ekusa teaches that the symbology is decoded to obtain a decode string (e.g., "textual information" such as "advertisement identification information 32b") using a visual detection application (e.g., "a program stored in ROM 24") residing on the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

#### *d)* Sending The Decode String To A Remote Server

Ekusa explicitly discloses the recited step of "sending the decode string to a remote server for processing." For example, Ekusa teaches "Here, because the connection information for accessing the information center 2 is included in the QR code 4 the user, who wants to know

detailed information on the product or service can access the information center 2 according to the connection information." Ekusa at ¶ [0015]. Ekusa provides a further explanation as follows:

According to such an embodiment, a QR code 4, which indicates advertisement identification information (including connection information), is printed on the advertising media 6. Once the user has seen the advertisement and scanned the QR code 4 with a portable telephone 7 having a function that can scan and thus read OR codes 4, the advertisement identification information indicated by the QR code will be stored in the portable telephone 7. Thus, the information center 2 (which is the connection destination) can be accessed in accordance with the user's operation, doing so through the connection topology specified by the connection information included in the advertisement identification information (which is stored in the portable telephone 7). Accordingly, the user can access the information center 2 and obtain information on the advertisement, doing so without worrying about the connection topology.

Ekusa at ¶ [0049].

When accessing the information center for additional information as described above, the decode string is sent to the information center's server:

When accessed by the portable telephone 7, the WWW server 3 of the information center 2 transmits information, which prompts the transmission of an advertisement identification code and a medium identification code. Accordingly, when the CPU 23 of the portable telephone 7 receives such information (S112), it transmits the advertisement identification code and the medium identification code, which are stored therein, to the WWW server 3 (S113).

Ekusa at  $\P$  [0042] (emphasis added).

Thus, Ekusa also teaches sending the decode string to a remote server (e.g., "information center 2") for processing and that the portable electronic device will be able to receive from the remote server information about the object that is based on the decode string (e.g., "information on the advertisement"). Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

e) Receiving Information About The Object From The Remote Server

Ekusa explicitly teaches "receiving information about the object from the remote server wherein the information is based on the decode string of the object."

Once the WWW server 3 of the information center 2 receives the advertisement identification code and the medium identification code from the portable telephone 7, it stores the codes and transmits detailed information applicable to the advertisement identification code. Accordingly, once the CPU 23 of **the portable telephone 7 receives the detailed information applicable to the advertisement identification code** (S114), it displays the received detailed information on the display part 16 (S115). Thus, the user can view detailed information regarding the advertisement or service.

Ekusa at ¶ [0043] (emphasis added). Stated another way, Ekusa explains that information is downloaded to the portable telephone. "In response to said access, information (contents data) on the product or service such as images, text, audio, etc., can be downloaded into the portable telephone 7 from the website on the WWW server 3 of the information center 2 ..." Ekusa at ¶ [0040].

Thus, Ekusa teaches that the portable telephone receives information about the product or service from the remote server (information center 2 including WWW server 3) wherein the information is based on the decode string of the object (connection information indicated by the QR code 4). Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

f) Displaying The Information On A Display Device

Ekusa also explicitly discloses "displaying the information on a display device associated with the portable electronic device."

Once the WWW server 3 of the information center 2 receives the advertisement identification code and the medium identification code from the portable telephone 7, it stores the codes and transmits detailed information applicable to the advertisement identification code. Accordingly, once the CPU 23 of the portable telephone 7 receives the detailed information applicable to the advertisement identification code (S114), it <u>displays the received</u> detailed information on the display part 16 (S115). Thus, the

user can view detailed information regarding the advertisement or service.

Ekusa at ¶ [0043] (emphasis added).

Thus, Ekusa teaches that the portable electronic device displays the received information on a display device (e.g., "display part 16") associated with the portable electronic device. Berisso Decl. at ¶¶ 48, 54, 58, and 62, and exhibits B, H, N thereto.

As shown above, Ekusa expressly discloses all elements of claim 1 of the '752 patent. Claim 1 of the '369 patent differs only slightly in that it does not require the "object," and claim 1 of the '190 patent differs only slightly further in that the device need not be "portable." Thus, Ekusa discloses all elements of claim 1 of the '369 and '190 patents as well.

#### V. Conclusion

As explained above, there is no genuine dispute that the asserted claims of the patents in suit are invalid under 35 U.S.C. § 102(b). For the foregoing reasons, Aetna respectfully requests that summary judgment be granted in its favor and that claim 1 of U.S. Patent Nos. 8,424,752, 8,651,369 and 8,936,190 be held invalid.

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#### **CERTIFICATE OF SERVICE**

This is to certify that a true and correct copy of this document has been served on all counsel of record via electronic mail through Local Rule CV-5(a) on this 30th day of September, 2016.

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